REMARKS

In the Final Office Action dated December 10, 2010, the following rejections are maintained: claims 1 and 6 stand rejected under U.S.C. § 103(a) over AAPA and Feuerstraeter (U.S. Patent Pub. 2003/0058894); claims 2-3 stand rejected under U.S.C. § 103(a) over AAPA and the '894 reference further in view of Bongiorno (U.S. Patent No. 6,292,045); claims 4-5 stand rejected under U.S.C. § 103(a) over AAPA and the '894 reference further in view of Werle (U.S. Patent No. 5,778,002). Claims 7-10 are noted as being allowed. Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

While Applicant appreciates the Examiner's reconsideration of claims 7-10 and the indication of allowance, Applicant respectfully traverses the § 103(a) rejections for lack of proper motivation for presenting the various combinations of teachings in an attempt to present a *prima facie* case of obviousness and for lack of any discernible correspondence. Further, Applicant submits that the maintained rejections are improper due to procedural inconsistencies (as addressed by the Board's Decision on Reconsideration) and due to the rejections being based on conclusions drawn from circular reasoning.

Applicant's previous response presented numerous arguments with details explaining improprieties with the maintained rejections. These detailed arguments of Applicant are not addressed in substance in the Examiner's final rejections or in the Response to Applicant's arguments. Rather, the final rejections are maintained based on flawed conclusions and arguments. With respect to the lack of proper motivation for presenting the various combinations of teachings, examples of the improprieties with the rejections are exemplified by the following arguments behind the Examiner's rationale regarding why the skilled artisan would be allegedly led to combine:

- "for the purpose of simplifying" in support (see rejections of claims 1 and 6) without further explanation or mention of any application which the so-called simplification would supposedly provide any specific benefit to any LIN-directed implementation;
- for the notably absent RC oscillator component (see rejections of claims 2 and 3), the Examiner argues the motivation as being "for the purpose of providing [a component] which has the ability" of the component) which is:

- conclusory and uses circular reasoning based on alleged relative advantages of "higher oscillation stability" which would be true only in comparison to a component providing inferior oscillation stability;
- erroneous in view of the record of cited art which evidences that programmable crystal oscillators as used with such teachings in the references of record provide significantly-higher stability, control and programmability;
- even though primary AAPA reference would already have a more stable oscillator in the form of a clock driver circuit and would be disadvantaged by a clearly more complex and lower-quality and less-stable design;

- "for the purpose of reducing latency" (see rejections of claims 4-5), "multiplexing ... high-speed data and low-speed data into a single data stream" even though for the environment of primary AAPA reference, there is nothing apparent from the record:
  - that would raise a need to reduce latency particularly given the AAPA reference's rate-synchronous slave nodes, and
  - that would suggest the existence or need of such dual-speed data paths particularly given that the receiving data is already in a single data stream.

With respect to the Examiner's Response to Arguments at pp. 6-7 of the Office Action, Applicant's detailed arguments are countered with an explanation of disagreement based on inapplicable statements made in an earlier Board decision which was withdrawn because, as explained by the Board in its Decision on Request for Rehearing, such statements/findings were made without providing Applicant a "fair opportunity to react to the thrust of the rejection." *Citing In re Kronig*, 539 F.2d 1300, 1302 (CCPA 1976). In this context, Applicant's detailed arguments establish why the rejections are improper and the Examiner's rebuttal arguments, presented for the first time at pp. 6-7 of the Office Action, are based on conclusions that the Board explained as being inapplicable and unfair to Applicant. Applicant further submits, that as best as these combined teachings are understood, they are improper under MPEP § 2143.01 for likely failing to providing anything that would be consistent with the LIN-based operation intended by the primary AAPA reference. Thus, at this time the record stands without any proper of substantive rebuttal to Applicant's detailed arguments.

Applicant further submits that the Examiner has failed to present any discernible explanation regarding what components and related functions would be used to supplement

and/or displace circuitry relied-upon in the underlying AAPA and/or '894 references. As such, Applicant fails to appreciate how the Examiner is attempting to establish correspondence by these combined teachings and whether such combined teachings would, for example, impermissibly change the functions of the structures and/or produce entirely different results. As a few examples demonstrating such lack of correspondence, the above discussion explains that the Examiner appears to be attempting to change the relied-upon AAPA reference in a manner that would not correspond to the claimed invention, because the circuitry in the relied-upon AAPA reference would be: simplified in a manner that would supposedly provide some unknown specific benefit to a LIN-directed implementation; changed by replacing or adding control via an inferior RC oscillator component which would have significantly inferior oscillation stability and likely would adversely impact the basic operation and synchronization abilities of the circuitry in the relied-upon AAPA reference; on one hand simpler and on the other hand be more complex, have lower-quality and less stability; and "for the purpose of reducing latency" would appear to entirely change the structures and related structural functions, *e.g.,* by adding dual-speed data paths and a multiplexer for multiplexing and by modifying a LIN protocol to include high-speed data and low-speed data in a single data stream (which would of course not at all correspond in that it would no longer be a LIN protocol), and would undermine the ability of slave nodes in the AAPA reference to be rate-synchronous (since processing the buffered data would be achieved asynchronously).

The unclear rejections also blur the issue of how correspondence is asserted in connection with the asserted interface circuit being in a self-contained fashion and providing the various functions as relied upon per the AAPA reference which is directed to LIN-based protocol but, according the Examiner, is modified dramatically based on circuitry and functionality of the '894 reference which has admittedly different structure and no such functionality. If Applicant were to be provided with some intelligible block diagram that illustrates how these disparate teachings of the prior art were being asserted, Applicant would have a fair opportunity to address and likely explain further that such a hypothetical design would be infeasible and improper under MPEP § 2143.01, *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984) (A §103 rejection cannot be maintained when the asserted modification undermines purpose of the main reference.).

Applicant respectfully submits that the rejection appears to be a well-researched effort to find possible prior art, but falls short because of the rigorous standards for maintaining such

rejections based on teachings from many disparate references. Applicant requests that the Examiner once again carefully review Applicant's above and previously-presented arguments (from the preceding Office Action as incorporated herein by reference) and reconsider allowance of the claims. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) and cited with approval in *KSR)*.

Some of the more specific arguments that remain unaddressed are as follows. The Office Action asserts one would be motivated to combine the '894 reference with the AAPA because the '894 reference teaches that detecting a data transfer rate allows for communication between one or more devices that would otherwise not be able to communicate "without using additional hardware." In the final Office Action, however, the Examiner appears to concede that "additional hardware" is now being relied upon. Thus, the Examiner acknowledges that Applicant is correct, but the Examiner fails to address that the solution was previously solved. Thus, Applicant had previously raised this issue, that a "solution is needed that automatically configures one or more devices residing in separate communication networks to communicate with each other when otherwise the devices would not" (Paragraph 0011 of the '894 reference) and that the AAPA reference already provides a workable solution for the LIN-protocol environment (*e.g.*, as used in the automotive industry); this solution already accounts for the different data rates of the LIN protocol via specially designed microcontrollers and associated external circuits, as discussed in Applicant's specification. Under the law of § 103, this problem must be considered and accounted for in the prior art teaching, and it is of import that the Examiner respond and address the fact that adding the SERDES chipset of the '894 reference, somehow modified for LIN-protocol, would merely provide a redundant solution -- a solution that is not noticeably different from AAPA.

The Examiner also fails to respond to Applicant's arguments that the skilled artisan would not find it obvious to redesign the '894 reference's chipset for a LIN-protocol when the reference suggests no clear advantage resulting therefrom; this was discussed in connection with the law such as *In re Larson* case (as cited by the Office Action) but the final Office Action appears to ignore this issue. In contrast, the Examiner's assertions of obviousness appear to be based on a rationale that it is always obvious to combine any or all disparate elements into one

integral component. Such assertions are unsupported by the M.P.E.P. and relevant case law. *See, e.g., Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983) (finding it unobvious to make integral multiple pieces of previous machines because doing so showed insights that were "contrary to the understandings and expectations of the art."). For instance, none of the cited references suggests a LIN-protocol solution with the recited elements arranged in a single integrated circuit. In addition, the '894 reference appears to teach away from such integration through the use of a frequency configuration unit and a frequency selector unit in each of the chips of the chipset disclosed by the '894 reference. Applicant submits that the only evidence of record that suggests the claim limitations as a whole is found in Applicant's specification. Accordingly, Applicant submits that the rejection is improper and requests that it be withdrawn.

Applicant respectfully maintains its traversal to the § 103(a) rejection of claims 7-10 because the '014 reference, alone or in combination with the '776 reference or the '894 reference, lacks correspondence to certain aspects of the claimed invention. The asserted hypothetical embodiment lacks correspondence to certain aspects of the claimed invention including, *e.g.*, converting analog signals to digital signals in response to a detected bit rate and providing a reset signal in response to monitor the vehicle battery voltage. The portion of the '014 reference asserted for converting from analog to digital in response to a detected bit rate does not appear to mention the detection of a bit rate, or the use of that detection in a conversion. Further, instead of converting a signal from analog to digital, it appears that the '014 reference converts a digital signal at one signal level to another digital signal at a different signal level. In addition the '776 reference does not appear to teach a reset in response to monitoring the vehicle battery voltage, but rather in response to the start of the vehicle. The battery voltage is not engaged prior to start of the vehicle and the actual voltage of the battery does not change when the vehicle is turned on. Further, there is no indication that the voltage battery level is monitored. For at least these reasons and the fact that they stand unrebutted, the asserted hypothetical embodiment lacks correspondence and the § 103(a) rejection should be withdrawn.

Also unrebutted is Applicant's traversal to the § 103(a) rejection of claims 7-10, because one of skill in the art would not combine the teachings of the '014 reference, the '776 reference and/or the '894 reference into a single embodiment, particularly from the different fields of endeavor (*e.g.*, "vehicle data communications" and "automatic data rate detection techniques").

The '014 reference is directed to operating a communication bus using a LIN protocol. The '776 reference, on the other hand, is directed to a vehicle anti-theft system. The fact that the anti-theft system and the LIN protocol are both located in a vehicle does not mean one of skill in the art would look to teachings of an anti-theft system to solve a problem in a communication bus. The disparity in the teachings of the two references is particularly apparent in the Office Action's erroneous assertion of correspondence to a reset signal. The '776 reference discloses that the reset signal is applied in response to turning on the ignition key. *See, e.g.*, Col. 4:59-62 and Col. 6:1-5. There is no indication in the '014 reference of a link between the use of the LIN protocol and the use of the appropriate ignition key. The current response amounts to a suggestion that one would look through all fields of endeavor to solve a problem not evidenced in the primary reference.

The Examiner does not substantively attempt to rebut Applicant's traversal to the § 103 rejection of claims 7-10, in view of the evidence that the cited references teach away. Consistent with the recent Supreme Court decision, M.P.E.P. § 2143.01 explains the long-standing principle that a § 103 rejection cannot be maintained when the asserted modification undermines either the operation or the purpose of the main reference - the rationale being that the prior art teaches away from such a modification. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (U.S. 2007). ("[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious."). Applicant submits that the combination would render the invention inoperable because the '014 reference specifically discloses shifting the range of voltage logic levels to Vbatt. Including a voltage regulator that provided a Vcc would render the device inoperable because the idle state of the communications bus is defined as Vbatt. Under M.P.E.P. § 2143.01, the rejections cannot be maintained.

The Office Action has also failed to rebut Applicant's position that there is not a proper reason for the asserted combination of references: the Office Action has provided no support for the assertion that the regulated voltage, monitoring of vehicle battery voltage, and reset signal asserted from the '776 reference are related to assuring proper voltage levels within an integrated circuit implementing a LIN protocol. The '776 reference, along with any disclosed regulation of voltage and reset signal are all directed towards the goal of implementing an anti-theft device that operates by locking the brakes until a data card has been read that allows for the brakes of the vehicle to be unlocked. The reset of the '776 reference, for example, places the microprocessor in the condition to initiate the unlocking of the brakes. Applicant fails to understand how such a reset signal is applicable to a LIN protocol. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) and cited with approval in *KSR*). For at least these reasons the § 103(a) rejection of claims 7-10 is improper and should be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Juergen Krause-Polstorff, of NXP Corporation at (408) 474-9062 or the undersigned.

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